

Application No. 10/064,756
Attorney Docket No. 125691-2 (13591US02)

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS

1. (Currently Amended) A method for obtaining cine angiography images with a computed tomography (CT) scanner, comprising:

monitoring a cardiac cycle of a patient;

selecting at least one independently configurable trigger array ~~along said cardiac cycle,~~ said at least one trigger array including a plurality of trigger points;

initiating at least one CT scan of said patient ~~upon the at least partial occurrence of said selected~~ based on said at least one trigger array;

selecting at least one additional independently configurable trigger array, said at least one trigger array including an additional plurality of trigger points;

initiating at least one additional CT scan of said patient ~~upon the at least partial occurrence of~~ based on said at least one additional trigger array;

performing at least two CT scans of said patient during a time period over two or more cardiac cycles; and

constructing a cine angiography loop from said at least two CT scans.

2. (Original) The method of claim 1, wherein said performing step obtains said at least two CT scans during a single cardiac cycle.

Application No. 10/064,756
Attorney Docket No. 125691-2 (13591US02)

3. (Original) The method of claim 1, wherein said performing step obtains said at least two CT scans consecutively and beginning at different points within said time period.

4. (Original) The method of claim 1, wherein said performing step performs a complete CT scan in no more than 100 milliseconds.

5. (Original) The method of claim 1, further comprising sweeping an electron beam across a target ring to perform said at least two CT scans.

6. (Original) The method of claim 1, utilizing an x-ray fan beam to obtain said at least two CT scans.

7. (Original) The method of claim 1, further comprising combining a series of three dimensional images into a three dimensional cine loop based on said at least two CT scans.

8. (Original) The method of claim 1, further comprising displaying a series of moving three dimensional images based on said at least two CT scans.

9. (Original) The method of claim 1, wherein said initiating step includes prospective gating based on said cardiac cycle of the patient.

10. (Original) The method of claim 1, further comprising moving the patient with respect to the CT scanner between or during CT scans.

11. (Original) The method of claim 1, further comprising moving the patient with respect to the CT scanner during each of said at least two CT scans to obtain spiral scans.

Application No. 10/064,756
Attorney Docket No. 125691-2 (13591US02)

12. (Original) The method of claim 1, wherein said performing step obtains multiple parallel CT slices from separate parallel rows of detectors in the CT scanner.

13. (Original) The method of claim 1, wherein said performing step obtains one image for each CT scan.

14. (Currently Amended) A method for obtaining cine loop images with a computed tomography (CT) scanner, comprising:

monitoring a cardiac cycle of a patient;

selecting at least one independently configurable trigger array ~~along said cardiac cycle,~~ said at least one trigger array including a plurality of trigger points;

initiating at least one CT scan of said patient ~~upon the at least partial occurrence of said selected~~ based on said at least one trigger array;

selecting at least one additional independently configurable trigger array, said at least one trigger array including an additional plurality of trigger points;

initiating at least one additional CT scan of said patient ~~upon the at least partial occurrence of~~ based on said at least one additional trigger array;

performing at least two CT scans of said patient during a time period over two or more cardiac cycles;

sweeping an electron beam along a target to generate an x-ray fan beam to perform at least two CT scans; and

constructing a cine angiography loop from said at least two CT scans.

Application No. 10/064,756
Attorney Docket No. 125691-2 (13591US02)

15. (Original) The method of claim 14, wherein said sweeping step obtains said at least two CT scans during a single cardiac cycle.

16. (Original) The method of claim 14, wherein said sweeping step obtains said at least two CT scans consecutively and beginning at different points within a time period of two or more cardiac cycles.

17. (Original) The method of claim 14, wherein said sweeping step performs a complete CT scan in no more than 100 milliseconds.

18. (Original) The method of claim 14, further comprising combining a series of three dimensional images into a three dimensional cine loop based on said at least two CT scans.

19. (Original) The method of claim 14, further comprising displaying a series of moving three dimensional images based on said at least two CT scans.

20. (Original) The method of claim 14, wherein said initiating step includes prospective gating based on said cardiac cycle of the patient.

21. (Original) The method of claim 14, further comprising moving the patient with respect to the CT scanner between or during CT scans.

22. (Original) The method of claim 14, further comprising moving the patient with respect to the CT scanner during each of said at least two CT scans to obtain spiral scans.

23. (Original) The method of claim 14, wherein said sweeping step obtains multiple parallel CT slices from separate parallel rows of detectors in the CT scanner.

Application No. 10/064,756

Attorney Docket No. 125691-2 (13591US02)

24. (Original) The method of claim 14, further comprising performing at least two CT scans of the patient during a time period over two or more cardiac cycles.

25. (Currently Amended) A method for generating cine angiography images, comprising:

monitoring a cardiac cycle of a patient;

selecting at least one independently configurable trigger array ~~along said cardiac cycle,~~ said at least one trigger array including a plurality of trigger points;

initiating at least one CT scan of said patient ~~upon the at least partial occurrence of said selected~~ based on said at least one trigger array;

selecting at least one additional independently configurable trigger array, said at least one trigger array including an additional plurality of trigger points;

initiating at least one additional CT scan of said patient ~~upon the at least partial occurrence of~~ based on said at least one additional trigger array;

performing at least two CT scans of said patient during a time period over two or more cardiac cycles;

constructing a cine angiography loop from said at least two CT scans; and

moving automatically the patient with respect to said CT scanner between or during at least two CT scans.

26. (Original) The method of claim 25, wherein said performing step obtains said at least two CT scans during a single cardiac cycle.

Application No. 10/064,756

Attorney Docket No. 125691-2 (13591US02)

27. (Original) The method of claim 25, wherein said performing step obtains said at least two CT scans consecutively and beginning at different points within a time period of two or more cardiac cycles.

28. (Original) The method of claim 25, wherein said performing step performs a complete CT scan in no more than 100 milliseconds.

29. (Original) The method of claim 25, further comprising combining a series of three dimensional images into a three dimensional cine loop based on said at least two CT scans.

30. (Original) The method of claim 25, further comprising displaying a series of moving three dimensional images based on said at least two CT scans.

31. (Original) The method of claim 25, wherein said initiating step includes prospective gating based on said cardiac cycle of the patient.

32. (Original) The method of claim 25, further comprising moving the patient with respect to the CT scanner during each of said at least two CT scans to obtain spiral scans.

33. (Original) The method of claim 25, wherein said performing step obtains multiple parallel CT slices from separate parallel rows of detectors in the CT scanner.